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MACHINE-TOOL INDUSTRY REPORTS EXTENSIVE SUCCESSES

SPEED PRODUCTION OF SCREW-CUTTING LATHES -- Zarya Vostoka, No 172, 1 Sep 49

In the Tbilisi Mechanical Foundry, the mechanical assembly shop has become outstanding for its achievements in the foundry's basic product, the T-4 turning and screw-cutting lathes. Its program has been doubled, and the workers have pledged to complete it on time. At present, equipment is being installed for anode-mechanical grinding of cutters.

MOSCOW PLANT PUTS OUT NEW LATHE -- Moskovskiy Bol'shevik, No 206, 1 Sep 49

The Moscow Machinery Plant has put out a new, high-speed surface-grinding, boring and turning lathe. Its large table diameter (1,500 millimeters), maximal grinding capacity, and high speed make it a tool of high precision and productivity. It will find wide application in the metallurgical industry and, in particular, in the grinding of circular saws, which was formerly done by hand.

ABBASIVES PLANT IMPROVES TECHNIQUES -- Pravda, No 206, 1 Sep 49

Great technological advances have recently been made in the "Il'ich" Abrasives Plant. Grinding wheels used to be produced in the form of ordinary blocks which, after drying, were subjected to prolonged grinding on a lathe. This resulted in 30-40-percent loss of valuable corundum. According to a new technique, the wheels receive the required shape during the molding process itself. This has made it possible for the plant to improve the quality of the wheels, reduce waste, and increase production.

The plant is mastering the technique of smelting corundum by adding titanous substances; this technique improves the quality of the materials from which the abrasives are produced. The method of producing wheels with high porosity is also being mastered. The quality of such wheels will be much higher than in the past. The perfection of techniques has permitted the plant to triple production in the past 2 years although the number of workers has remained the same.

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GIANT TOOLS BORE ELECTRIC ENGINE CYLINDERS -- Kommunist, No 207, 2 Sep 49

The huge IR-10 boring machine, 17 meters long and weighing 170 tons, produced by the Leningrad Machine-Tool Building Plant imeni Sverdlov, was tested on a steel casting for electric engine cylinders. It attained a cutting speed of 250 meters per minute. The first machine is destined for the Bryansk Locomotive Plant.

The machine is equipped with 63 electric motors (electomashiny) and bores the workpiece from both sides simultaneously. The conventional cutter has been replaced by a wide one which reduces the time for the perforation of a cylinder 30-50 times.

More than twenty designers, directed by Stalin Prize Laureate M. E. Elyasberg, participated in the planning of this machine. The chief designer was A. I. Kir'yanov; another participating designer was Stalin Prize Laureate P. G. Kogel.

Leningradskaya Pravda, No 213, 9 Sep 49

A new boring machine, Type 2631, has been developed at the Leningrad Plant imeni Sverdlov. It is intended for boring locomotive cylinders. All hand wheels have been replaced by a so-called "electric operator" attachment. Loading, clamping and machining of the part is automatic.

In addition to its automatic system of controls, this machine is the first boring machine to be equipped with an optical attachment for inspecting accuracy of parts being machined.

Imenitov, chief designer at the Leningrad Design Bureau of Machine-Tool Building, gave high praise for this new giant of the Plant imeni Sverdlov.

MODEL 1A309 DRILLING MACHINE -- Stanki i instrument, No 7, Jul 49

The Model 1A309 horizontal, quadrilateral four-spindle drilling machine is intended for drilling, counterboring, and reaming four holes from four directions in differential housings.

Dimensions of the machine tool are: length, 4,100 millimeters; width, 4,100 millimeters; height, 1,250 millimeters; weight, 8 tons. The chief designer was Rostislav Filippovich Novosad.

ASSIGN TOOLS PERMANENTLY TO OPERATORS -- Vechernyaya Moskva, No 209, 2 Sep 49

In connection with the campaign for cleanliness and culture in the Zaporozh'ye Pump Plant imeni Voykhov, one of the workers in the machine shop requested that her machine tools be assigned to her permanently and that this be done officially, in writing. This, she explained, would prolong the life of her tools and improve the quality of her product. Her request was granted, and subsequently all the other workers were given this concession. Certificates, which are transferable, are now being issued to all. In many of the shops, the areas around the machine tools are kept immaculately clean, and the workers are more attentive to expenditure of raw materials and the wear of the machines.

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NEW CASTING METHOD ROCKETS PRODUCTION -- Leningradskaya Pravda, No 207, 2 Sep 49

Plant No 1 of the "Lengzapparatura" Trust has introduced pressure casting in its shop. The product comes from the press clean and smooth, and requires only a little trimming and polishing; its quality is beyond criticism. The personnel work at a leisurely but efficient pace and regularly meet the daily norm.

This method has reduced the cost of production many times. The shells for cash registers are complicated mechanisms, with many apertures, protrusions, facets, and depressions. Formerly, they were made of brass, a brittle material which caused as much as 50-percent breakage. With the new method, loss through breakage has been completely eliminated. It is possible to produce 700-800 such parts per day on one machine.

The production of clippers has become a very simple matter. This small but intricate tool formerly required nine dies and different attachments, as well as a great deal of milling and filing. Breakage was often 30 percent. At present, four clippers per half-minute are produced simultaneously in one pressmold. The effectiveness of this method is especially notable in the production of such parts as the casing of a pressure gauge. Formerly, a skilled worker could produce only two pieces in one shift; now, 200 such pieces are produced in 4 hours. This plan resulted in one million rubles' above-plan profit to the plant during the first 6 months of 1949. Almost all parts are now produced in this plant by the new method. In addition, this plant has made many of its machine tools automatic. About 70 percent of production now takes place on automatic machines.

PRODUCE SEMI-DIESEL ENGINES -- Pravda Ukrainy, No 206, 1 Sep 49

The Novograd-Volynskiy Machine-Tool Building Plant is beginning to turn out one-cylinder, semi-Diesel engines. These are very economical, can develop up to 22 horsepower, and may replace tractor motors when the work is performed under stationary conditions.

MANAGERS GET REFRESHER COURSES -- Moskovskiy Bol'shevik, No 212, 8 Sep 49

The Machine-Tool and Tool Institute imeni Stalin has opened courses in higher engineering. The courses are designed to raise the qualifications of managerial personnel of enterprises of the Ministry of Machine-Tool Building USSR. The first class begins 1 October and will consist largely of managerial personnel from Moscow enterprises.

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